## **Claims**

1. A glass for use in chemical reinforcement for use in a substrate of an information recording medium, having a composition comprising, denoted as mol%:

47 to 70 % SiO<sub>2</sub> 1 to 10 % Al<sub>2</sub>O<sub>3</sub>(where the total of SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> is 57 to 80 %) 2 to 25 % CaO 1 to 15 % BaO 1 to 10 % Na<sub>2</sub>O  $K_2O$ 0 to 15 % (where the total of Na<sub>2</sub>O and K<sub>2</sub>O is 3 to 16 %)  $ZrO_2$ 1 to 12 % 0 to 10 % MgO

SrO

(where the ratio of the content of CaO to the total of MgO, CaO, SrO, and BaO is greater than or equal to 0.5)

0 to 15 %

ZnO 0 to 10 % (where the total of MgO, CaO, SrO, BaO, and ZnO is 3 to 30 %)
TiO<sub>2</sub> 0 to 10 %

and the total content of the above-stated components is greater than or equal to 95 %.

- 2. The glass for use in chemical reinforcement of claim 1 characterized in that the ratio of the BaO content to the total content of MgO, CaO, SrO, and BaO is greater than or equal to 0.15.
- 3. A glass for use in chemical reinforcement for use in the substrate of an information recording medium employed in a perpendicular magnetic recording system, in which the glass exhibits the glass transition temperature is greater than or equal to 600°C.

- 4. The glass for use in chemical reinforcement of any of claims 1 to 3 which has a Young's modulus of greater than or equal to 75 GPa.
- 5. A substrate for use in an information recording medium characterized by consisting of the glasses of any of claims 1 to 4 and being chemically reinforced.
- 6. The substrate for use in an information recording medium of claim 5 which employs a chemically reinforced glass in which the bending strength following heating for two hours at 570°C to is greater than or equal to 15 kgf/mm<sup>2</sup>.
- 7. A substrate for an information recording medium characterized by consisting of a chemically reinforced glass having a glass transition temperature of greater than or equal to 600°C and exhibiting a bending strength following heating for two hours at 570°C of greater than or equal to 15 kgf/mm<sup>2</sup>.
- 8. The substrate for an information recording medium of any of claims 5 to 7 in which, when the bending strength of the glass constituting the substrate prior to chemical reinforcement is denoted as  $f_b$  and the bending strength of the glass when maintained for two hours at a temperature T [°C] (where T denotes any temperature of from 20 to 570°C) after having been chemically reinforced is denoted as  $f_T$ , the value of  $(f_T-f_b)/f_b$  is greater than or equal to 0.5.
- 9. The substrate for use in an information recording medium of claim 8, wherein the value of  $(f_{20}-f_b)/f_b$  for the bending strength  $f_{20}$  at T=20°C is greater than or equal to 1.
- 10. The substrate for use in an information recording medium of any of claims 5 to 9, wherein the average coefficient of linear expansion at 30 to 300°C of the glass constituting the substrate is greater than or equal to  $60 \times 10^{-7} \text{K}^{-1}$ .

- 11. The substrate for use in an information recording medium of any of claims 5 to 10 that is chemically reinforced by an ion exchange treatment in which sodium ions are replaced with potassium ions.
- 12. The substrate for use in an information recording medium of any of claims 5 to 11 that is employed as a substrate for an information recording medium employed in a perpendicular magnetic recording system.
- 13. An information recording medium characterized by comprising an information recording layer on the substrate for an information recording medium of any of claims 5 to 11.
- 14. The information recording medium of claim 13 that is a magnetic recording medium employed in a perpendicular magnetic recording system.
- 15. The information recording medium of claim 13 or 14 characterized by being manufactured by subjecting a substrate having an information recording layer to a heat treatment at a maximum temperature of 300 to 600°C.
- 16. A method of manufacturing an information recording medium comprising a step of forming a multilayered film comprising an information recording layer on the substrate for an information recording medium of any of claims 5 to 11, characterized by further comprising the heating of the substrate on which the multilayered film has been formed to a temperature of from 300 to 600°C.